

PC Recorder Series

**MSRpro SOFTWARE PACKAGE**

MODEL **MSR2K**

**MODEL & SUFFIX CODE SELECTION**

MODEL \_\_\_\_\_ **MSR2K**

***DISCONTINUED MODEL***  
***Replaced with Model MSR2K-V2***

***Functions & Features***

- Industrial recorder on Windows based PC
- Stores, computes and plots in high speed multi-channel input data of variety
- Client-server system
- Total of 2048 analog-discrete mixed input channels
- 100 msec. high speed storing mode
- Recorded data is exportable to other Windows applications in CSV format

**ORDERING INFORMATION**

Specify code number. (e.g. MSR2K)

**PACKAGE INCLUDES ...**

- CD-ROM ..... (1)
  - Builder Software
    - Model: MSR2K-B, English/Japanese version
  - Server Software
    - Model: MSR2K-S, English/Japanese version
  - Client/Analyzer Software
    - Model: MSR2K-C, English/Japanese version
  - Users manuals for each software program

**RELATED PRODUCTS**

- Remote I/O R3 Series Network Module for Modbus/TCP (Ethernet) (model: R3-NE1)

## HARDWARE REQUIREMENTS

### ■MSR2K-S (Server Software)

	MSR2K-S
PC	IBM PC/AT or compatible
Operating system	Microsoft Windows 2000 or Windows XP Professional SP2
CPU	Pentium IV 2.0 GHz or higher
Screen area	XGA (1024 by 768 pixels) or better resolution
Display color	65000 colors (16 bits)
Main memory	512 MB minimum; 1 GB minimum recommended
Hard disk area	80 GB; Use an internal hard disk. *1
I/O hardware	R3-NE1
CD-ROM drive	Windows supported CD-ROM drive is used to install the software program.
Mouse	Windows supported
Communication port	LAN card by Windows

\*1. External (e.g. SCSI) devices may impair appropriate performance. Please secure enough hard disk space for the MSR2K data. Recorded data may be periodically transferred to external storage media to allow new data stored.

CAUTION: The software's performance largely depends upon the PC's performance including other environmental conditions. Data sampling may be missed when it is not adequate. The missing parts will be filled with the previously sampled data.

### ■MSR2K-C (Client Software)

	MSR2K-C
PC	IBM PC/AT or compatible
Operating system	Microsoft Windows 2000 or Windows XP Professional SP2
CPU	Pentium IV 2.0 GHz or higher
Screen area	XGA (1024 by 768 pixels) or better resolution; SXGA (1280 by 1024 pixels) recommended to show 50 or more groups
Display color	65000 colors (16 bits)
Main memory	512 MB minimum; 1 GB minimum recommended
I/O hardware	R3-NE1
CD-ROM drive	Windows supported CD-ROM drive is used to install the software program.
Mouse	Windows supported
Communication port	LAN card by Windows

■MSR2K-B (Builder Software): Installed and used in the Server PC.

NOTE: When the Server and the Client are used on the same PC, the PC must satisfy the Server's system requirements.

## SOFTWARE FUNCTIONS

The MSRpro consists of the following three modules:

- (1) Builder Software, MSR2K-B
- (2) Server Software, MSR2K-S
- (3) Client/Analyzer Software, MSR2K-C

### ■BUILDER SOFTWARE, MSR2K-B

The MSR2K-B sets various parameters to communicate with I/O devices, store and distribute data.

#### Parameters

- Operating environment
- Pen setting
- Alarm setting
- Display setting for Trend, Overview and Analyzer
- Read and Save Configuration Files
- Save Configuration Files in CSV

### ■SERVER SOFTWARE, MSR2K-S

The MSR2K-S samples data at I/O devices, calculate and store data in files. Stored data is distributed upon request from Clients.

#### Sampling Rate

**Normal mode:** 1 second

**High speed mode:** 100, 500 msec. (1 station only)

#### Data Storing Method

**Normal:** Recording is manually initiated and stopped. Data is continuously stored while the recording is on.

**Auto:** Recording is automatically initiated and stopped at a predefined time.

**Event recording:** The Server detects an external event by trigger signal, and stores preset number of samples (max. 120 as pretrigger, max. 1200 as posttrigger) before and after the moment of event.

**Remote trigger:** Data is automatically recorded while the external trigger condition (input) is true.

#### Storing Rate (reading and plotting)

**Normal mode:** 1, 2, 5, 10, 20, 30 seconds, 1 minute, 10 minutes; selectable per group

**High speed mode:** 100, 500 msec.

**Computation Functions:** Square root extraction, arithmetic functions, logic functions, segment linearization and temperature/pressure compensation, square root extractor, moving average (between 2...5 samples)

**Maximum number of I/O stations:** 8

**Maximum number of I/O signals:** 2048 (Limited to 512 when the Server and the Client are in the same PC.)

### ■CLIENT/ANALYZER SOFTWARE, MSR2K-C

The MSR2K-C displays data on the screen and performs data setting. The Client can be installed in a separate PC from the one installed with the Server.

#### Data Display

**Number of display channels:** 32 pens are grouped to be displayed on one view; 64 groups in total for 2048 channels.

#### Display views:

Max. 8 views can be called up on the screen.

#### Real Time Trend Display

**Perpendicular chart:** The latest data at the top or the bottom selectable

**Horizontal chart:** The latest data at the right or the left selectable

**Pen position indicator:** Marker, digital value, bargraph or color graph

**Overview:** Displays data for the all channels within a group

**Real time analyzer:** Overlapping, masking

#### Trend retrieval

**Alarm history:** Historical data indicating the time indexes when an alarm is triggered and reset.

#### Analyzer

**Enlarge:** Enlarges the area by mouse clicking

**Compare:** Overlapping multiple sets of retrieved data

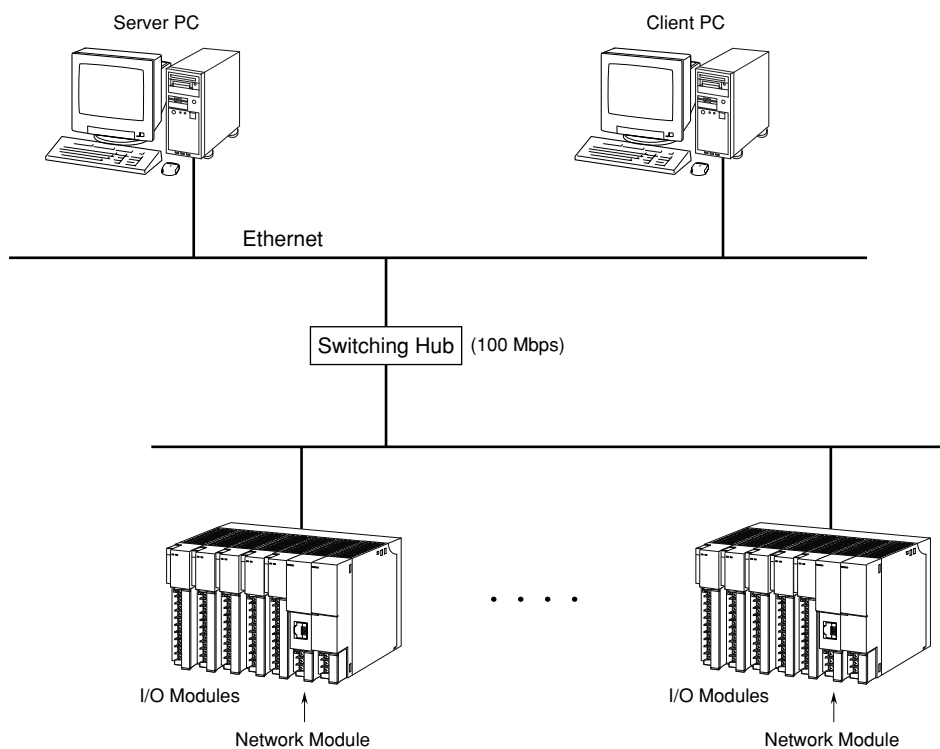
**Search:** Maximum value, minimum value, conditioning, rising/sinking edges

**Maximum number of clients:** 4

#### CAUTION:

The MSR128 data cannot be imported into the MSR2K.

## SYSTEM CONFIGURATION EXAMPLES



Note 1. Use a dedicated Ethernet network for the PC and the R3 modules.

Note 2. Max. four (4) Client PC.

Note 3. Max. eight (8) R3 stations.

### ■MSRpro I/O DEVICES

#### •Network Module for Modbus/TCP (Ethernet): Model R3-NE1

#### •I/O Modules

SIGNAL TYPE	MODEL NO.
Thermocouple	R3-TS4, R3-TS8
RTD	R3-RS4, R3-RS8
DC Voltage	R3-SV4, R3-SV4A, R3-SV8, R3-SV8A, R3-SV8N, R3-SV16N
DC Current	R3-SS4, R3-SS8, R3-SS8N
4 – 20 mA (excitation supply)	R3-DS4, R3-DS8N
Potentiometer	R3-MS4, R3-MS8
AC Current (CT)	R3-CT4
AC Voltage (VT)	R3-PT4
Discrete input	R3-DA16, R3-DA16A, R3-DA16B, R3-DA32A, R3-DA64A
Discrete output	R3-DC16, R3-DC16A, R3-DC16B, R3-DC32A, R3-DC64A

Specifications subject to change without notice.